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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,228	03/30/2000	Donald F. Gordon	19880-001630US	7843

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EXAMINER

DEMICO, MATTHEW R

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 09/09/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/539,228

Applicant(s)

GORDON ET AL.

Examiner

Matthew R Demicco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 June 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responsive to an amendment filed 6/12/03. Claims 1-8 are pending. Claims 1 and 5-7 have been amended. The Examiner hereby withdraws the prior objections to the Drawings and Specification in light of the amendment.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 5-7 have been considered but are moot in view of the new ground(s) of rejection.

3. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Eyer teaches an interactive program guide with a demand data stream using multiplexed packetized data. Chernock teaches a method for displaying enhanced multimedia including supplementary data communicated using a multiplexed MPEG 2 private data stream. Both inventions are inter-related in that they deal with user set top terminals displaying information that is packetized, multiplexed, and transmitted with video data. In this, there is an obvious correlation between both inventions. The motivation to utilize the MPEG 2 private data

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stream of Chernock in the invention of Eyer should be obvious to one having ordinary skill in the art, as the use of a well-accepted industry standard that is already implemented in countless similar broadcasting systems is highly favorable over lesser-known proprietary solutions.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,801,753 to Eyer et al. in view of U.S. Patent No. 5,461,415 to Wolf et al.

Regarding Claim 1 Eyer discloses an electronic program guide system wherein a transport stream generator (IPG Data Processor) generates a digital message that is sent to a user's head-end terminal (Receiver) comprising channel name tables and other data required to process packetized stream data (Col. 6, Lines 60-67). The demand data (EPG schedule data) is provided in a plurality of different multiplexed data streams (Col. 6, Lines 20-23). This reads on the digital message comprising a list of demand-cast streams that are available in a transport stream being transmitted from the transport stream generator. What is not disclosed, however, is a different demand-cast stream added to the list in response to a request by the terminal, the stream being accessible from the list as long as one other terminal is associated with the different demand-cast stream.

Wolf discloses a video-on-demand system wherein multiple viewers share a common

data stream (See Abstract and Col. 3, Lines 23-30). Upon the arrival of a video request from a plurality of clients (Col. 3, Lines 63-65) a stream is designated for those clients (Col. 3, Lines 65-67). This reads on a different demand-cast stream added to the list of available demand-cast streams in response to a request by a terminal. Further, Wolf discloses that the streams will be accessible until such time as no viewers are using it (Col. 6, Lines 48-58). This reads on the claimed different demand-cast stream being accessible from the list as long as at least one other terminal is associated with the stream. Wolf is evidence that ordinary workers in the art would recognize the benefits of instantiating and removing demand cast streams dynamically in response to user requests. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Eyer with the dynamic instantiation and removal of streams in order to conserve bandwidth and I/O resources to only the amount that is necessary to service the currently active viewer requests.

Regarding Claim 2, Eyer discloses a system as stated above in Claim 1. Furthermore, Eyer discloses the use of a communications network (Col. 5, Line 33). It is inherent in a communications network that devices on the network would have to include their address for proper routing of data. This reads on the claimed transmission of the digital address for the transport stream generator in the digital message. Eyer further discloses that the IPG data streams are multiplexed together, and then further multiplexed with other data packets for other services (Col. 6, Lines 25-29). As stated above, Eyer discloses transmitting channel name tables and other information required to recover the packetized data stream information. In order to recover the multiplexed EPG data from

the transport stream multiplex, an identifier must be included in the digital message sent from the IPG Data Processor. This reads on the claimed identifier for a multiplexer channel within the transport stream generator included in the digital message.

Regarding Claim 5 Eyer discloses a method wherein a transport stream generator (IPG Data Processor) communicates a digital message to a user's head-end terminal (Receiver) comprising channel name tables and other data required to processes packetized stream data (Col. 6, Lines 60-67). The demand data (EPG schedule data) is provided in a plurality of different multiplexed data streams (Col. 6, Lines 20-23). This reads on a method of sending to the terminal a list of demand-cast streams that are available in a transport stream being transmitted from the transport stream generator. What is not disclosed, however, is a different demand-cast stream added to the list in response to a request by the terminal, the stream being accessible from the list as long as one other terminal is associated with the different demand-cast stream. Wolf discloses a video-on-demand system wherein multiple viewers share a common data stream (See Abstract and Col. 3, Lines 23-30). Upon the arrival of a video request from a plurality of clients (Col. 3, Lines 63-65) a stream is designated for those clients (Col. 3, Lines 65-67). This reads on a different demand-cast stream added to the list of available demand-cast streams in response to a request by a terminal. Further, Wolf discloses that the streams will be accessible until such time as no viewers are using it (Col. 6, Lines 48-58). This reads on the claimed different demand-cast stream being accessible from the list as long as at least one other terminal is associated with the stream. Wolf is evidence that ordinary workers in the art would recognize the benefits of instantiating and removing demand

cast streams dynamically in response to user requests. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Eyer with the dynamic instantiation and removal of streams in order to conserve bandwidth and I/O resources to only the amount that is necessary to service the currently active viewer requests.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyer et al. in view of Wolf et al. and further in view of U.S. Patent No. 6,314,569 to Chernock et al.

Regarding Claim 3, Eyer discloses a system as stated above in Claim 1. Further, Eyer discloses the use of a table in the digital message (See Figure 3). What is not disclosed, however, is that the table is communicated in the private section of a transport stream. Chernock discloses a video overlay system using MPEG-2 transport to carry non-video data in a private data stream (Col. 4, Lines 41-55). Chernock is evidence that one having ordinary skill in the art would recognize the benefit of using the MPEG-2 private data stream to transport non-video data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Eyer to transport the EPG data tables in the private section of MPEG-2 transport stream in order to encapsulate the information within the existing multiplex stream already destined for the client terminal without the need for an additional network or transmission protocol.

Regarding Claim 4, Eyer in view of Chernock discloses a system as stated above in Claim 3. Eyer further discloses a table (See Figure 3) that contains a version number that is incremented when the digital message changes (Col. 9, Lines 50-55).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolf et al.

Regarding Claim 6, Wolf discloses a method for communicating from a terminal (Client) to a session manager (Look Ahead Scheduler) wherein the terminal sends the session manager an acquisition message (See Figure 5, Step 10) when acquiring a demand-cast stream that is available for association of the terminal with the stream by the session manager. Further, Wolf discloses sending a stop request message when the client releases the demand-cast stream (Col. 3, Lines 24-25) for disassociation of the terminal with the demand-cast stream by the session manager and determination by the manager whether there are other terminals associated with the data stream (Col. 6, Lines 48-58). Similarly, the client can sent a request message to acquire a demand-cast stream that is unavailable. This is illustrated in Figure 9 where the client sends a pause request to the

session manager. Upon resuming, the system designates a new look demand-cast stream to service the client's request.

Regarding Claim 7, Wolf discloses a method for two-way communication between a session manager (Look Ahead Scheduler) and a transport stream generator (Main Control Problem) wherein the main control problem is sent a message when there are no longer any terminals acquiring a demand-cast stream. It is inherent in the system of Wolf that when no users are utilizing the demand cast stream and it is released as shown in Figure 9, Step 240, the control program would be notified to stop retrieving the data from disk and broadcasting it over the network. Further, in order to service a user's request for a demand-cast stream that is not active as stated above in Claim 6, the session manager of Wolf would have to notify the stream generator to start retrieving the data from disk and broadcasting it over the network. This reads on the claimed sending to the transport stream generate a stream requested message when a terminal requests a demand-cast stream that is not currently provided by the transport stream generator for acquiring the demand cast stream for the terminal and associating the terminal and other terminals that request the demand-cast stream with the demand-cast stream. As stated above in Claim 1, a plurality of clients may be associated with a single demand-cast stream (Col. 3, Lines 63-65).

Regarding Claim 8, Wolf discloses a method as stated above in Claim 7. It would be inherent in such a system that the stream generator would send an acknowledgement to the session manager in response to receiving a release message. This operation must take place in order for the session manager to update its in-use/reserved/available stream

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table as seen in Figure 3. Furthermore, it would be inherent in such a system to send a stream requested acknowledgement message from the stream generator to the session manager in response to receiving a stream requested message. This too, must take place in order for the session manager to update its stream table.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew R Demicco whose telephone number is (703) 305-8155. The examiner can normally be reached on Mon-Fri, 9am - 5pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

MRD

mrdr
September 3, 2003


CHRIS GRANT
PRIMARY EXAMINER